BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: August 17, 2016
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Matt Urban
Sarah Large
Ron Crickard
Tony Weatherbee
Marc Laurin
Chris Carucco
Trent Zanes
Mike Dugas
Kirk Mudgett
Victoria Chase
Jennifer Reczek
Gerry Bedard
Rebecca Martin

Army Corps of Engineers
Michael Hicks

EPA
Mark Kern

FHWA
Jamie Sikora
Mark Hasselmann

NHDES
Gino Infascelli
Lori Sommer

NH Fish & Game
Carol Henderson
Heidi Holman

NHB/DRED
Amy Lamb

Consultants/Public Participants
Peter Pitsas
Allison Reese
Peter Walker
Christine Perron

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:
(minutes on subsequent pages)

(When viewing these minutes online, click on a project to zoom to the minutes for that project

NOTES ON CONFERENCE:

Finalization of June 15th 2016 Meeting Minutes
The finalization of June's meeting minutes were postponed in order to complete the meeting minutes because of a late submission. Matt indicated that we would finalize these minutes a week after we receive the notes. Now we will finalize them at the September 21st meeting.

Conway, 40018 Main Street Infrastructure Improvements (Non-Federal)
Initial consultation regarding Main Street Infrastructure Improvements. The project includes road and sidewalk reconstruction, water main replacement, drainage system repairs and replacement in kind, possible utility pole and wire relocations, and possible underground telecommunication relocation. Work will be done from back of sidewalk to back of sidewalk – no anticipated work outside the corridor. The affected area lies between the Conway Scenic Railroad tracks (near the W. Main Street intersection) and the intersection Village Lane and East Main Street.

Peter Pitsas presented an overview of the project, including a description of the project limits. The schedule has been pushed back, with anticipated project award in January of 2018 and construction starting spring of 2018 and ending in the late spring of 2019.

P. Pitsas explained letters had been sent out and natural resource findings include the following:

- Saco River is a designated river, but not within the project boundaries
- No species of concern have been found specifically within or near the project area
- No critical habitats, refuges, or fish hatcheries near the project area
- No high quality watersheds found
- No roadside swales within the project area

P. Pitsas stated proposed drainage includes curbing and replacement of closed drainage system in kind. The bridge over Pequawket Brook was reconstructed approximately 15 years ago by the NHDOT, including a water main, so the water main installed as part of this project will connect to both ends of that section of pipe under the bridge. BMPs will be installed during construction, including silt fence and catch basin inlet protection.

Mark Kern asked if new bike lanes will be part of the project. P. Pitsas said the possibility was explored, but it appears there is not enough width within the existing right-of-way to add bike lanes unless parking spaces were to be eliminated. The ROW is approximately 3-feet behind the back of sidewalk. He indicated resistance to elimination of parking spaces by business owners.

Michael Hicks asked if any wetland impacts are anticipated. P. Pitsas said no, the drainage outfalls will be maintained and the only work expected on the bridge is resurfacing. M. Hicks said the Army Corp of Engineers will be the lead federal agency (not a federally funded project) if any impacts do occur, so Underwood is to contact them if the outfalls are later determined to be replaced.

Gino Infascelli asked if any water quality improvements will be part of this project, such as implementation of a maintenance plan for catch basin cleaning. P. Pitsas explained that there are no existing treatment swales or room to construct new ones, and that maintenance of this roadway falls under NHDOT jurisdiction. He also noted that the catch basins will have standard sumps.

Matt Urban asked if Pequawket Brook falls under the Shoreland Protection Act. P. Pitsas says he believes that yes, it is on the 4th order or higher list. M. Urban said to keep that permit requirement in mind.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Dixville, 41077 (Bridge #182/070) (Non-Federal)
Tony Weatherbee presented the project. The bridge is a metal pipe over Lake Gloriette Outlet carrying Spur Road to the Balsams Resort. The road will be closed for the duration of the project. There are temporary impacts around the structure for access and permanent impacts downstream for riprap. The outlet is perched 3' to 4', but because the pipe is impassable due to the length and 24 degree angle, the perch will not be addressed. The pipe is cracked along the bolt line and the invert is rusted so the proposed project is to install a concrete invert.

T. Weatherbee further explained that the structure also acts as a dam. The dam is owned by DOT and maintained by District One. An emergency action plan and a hydraulics and hydrology report is being conducted by a consultant that will determine whether or not the dam is adequate or deficient.

Carol Henderson asked if people live on the lake and T. Weatherbee said no. C. Henderson also asked if we have considered removing the dam. T. Weatherbee said that it was discussed as an alternative of last resort, and the hydraulics and hydrology report would determine the outcome. The ideal situation is to be allowed by the report to install a concrete invert. Removing the dam would be a problem for the resort, as the pond is used for recreation.

Mike Hicks asked if removing the dam would lower the water level and T. Weatherbee said yes. M. Hicks said that this would be a problem for the Army Corp. Lori Sommer added that removing the dam would be problematic in obtaining a permit.

Gino Infascelli asked that in the permit application the invert elevations be included. He noted that the structure does not meet the stream crossing rules. Matt Urban and T. Weatherbee noted that the stream crossing rules do not apply to a bridge or dam structure at the outlet of a lake. M. Urban noted that the crossing cannot be evaluated based on the stream crossing rules because of the lake on the other side causing there to be no bankful width.

T. Weatherbee said that he would like to submit the application to get the review process started. G. Infascelli said that that is OK, however he would not like to issue the permit until he sees the consultant's hydraulic report.

M. Hicks asked if any tree cutting would be taking place. T. Weatherbee said that it is possible for less than one acre to be cut. M. Hicks asked to reevaluate whether or not this was truly necessary, as the photos look clear of trees.

T. Weatherbee, G. Infascelli, and L. Sommer agreed that there are no issues with the project as long as the dam's hydraulic report is OK and that no mitigation is required.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Manchester, 16099 (I-293 Exit 6 & 7) (Non-Federal)
Peter Walker (VHB) presented on Manchester 16099, a NEPA study of Interstate 293 in the vicinity of Exits 6 and 7 in Manchester.

Project Status and Schedule
The Study Area includes a 3.5 mile section of I-293 from just north of the Exit 5 (Granite Street) interchange to approximately 1.8 miles north of Exit 7. The study area includes portions of the Manchester Historic Mill District, the Manchester Community College, and the Manchester Landfill. North of the Manchester landfill, the area extends west to include portions of Dunbarton Road, Goffstown Road and Straw Road, and east to Front Street. Within this study area, natural resource field work is substantially complete. Wetlands have been field delineated, rare plant surveys have been conducted, and a wildlife habitat evaluation has been completed.

The project was previously analyzed in a Feasibility Study, which was published in December 2013, is now moving through the NEPA process, and is classified as an Environmental Assessment (EA). A draft Purpose and Need statement has been released for comment (see below). A traffic analysis and development of alternatives is in progress. A Proposed Action is expected this fall. An EA will be written over the winter, and a Public Hearing is expected in the Spring of 2017.

Purpose and Need
P. Walker distributed a draft Purpose and Need Statement. NHDOT and FHWA are seeking feedback on the proposal. Comments can be made by email to Marc Laurin and Keith Cota.

Lori Sommer (NHDES) asked if the Corps needs to adopt this purpose and need statement, and expressed some concern about the implication of the last bullet in the draft purpose statement (which references improving access to the highway consistent with the long-term vision of the communities of Manchester and Goffstown). Mike Hicks (USACE) asked about the total wetland impact. P. Walker indicated that the preliminary analysis has calculated impacts at about 3.3 acres, but the team is looking for ways to minimize impacts, with the goal of keeping total impacts under 3 acres. M. Hicks suggested that the project is most likely going to need an individual permit. If so, the Corps would need to develop or adopt a project purpose for the Section 404 analysis. The Corps prefers to use the same purpose statement as the lead federal agency however, they do sometimes differ. In this case, FHWA is acting as the lead federal agency; although the project would be funded by state turnpike funds, the FHWA is involved due to the modification of an interstate interchange.

L. Sommer and Mark Kern (USEPA) asked about potential for induced growth at Hackett Hill. P. Walker explained that during the Feasibility Study phase and during the current phase, many citizens and public officials have supported the idea of moving Exit 7 northward and creating a connection to Dunbarton Road, and even extending that connection to Straw Road. There have been no decisions made on a preferred alternative, but the traffic analysis does show that there would be a substantial benefit to making this connection in the form of reduced traffic on Goffstown Road and by extension at Exit 6. Therefore, the relocation of Exit 7 is being seriously considered and may eventually be incorporated into the Proposed Action. Attendees indicated that the issue of induced growth would therefore be a concern. P. Walker stated that NHDOT recognizes the issue, and plans to assess the potential impacts in the EA.

Preliminary Wetland Impacts

While much of the Study Area is urbanized, notable resources include the Merrimack River, Black Brook, and Milestone Brook. A cluster of vernal pools were identified in the area north of the Manchester Landfill. To date, rare plant surveys have focused on the footprint of the alternatives and have found only licorice goldenrod, a State endangered plant, present in potential impact areas.

P. Walker stressed that the team is actively developing alternatives, and there is not yet a preferred solution. So, the impact analysis is not yet complete. However, using preliminary information, a first analysis found that wetland impacts would be on the order of about 3.3 acres. P. Walker reviewed four key areas of potential impacts:

I-293 Mainline, South of Exit 6

The traffic analysis is clear that the interstate needs to be widened from two to three lanes in each direction. However, the right-of-way is limited by the presence of the historic millyard on the west and the Merrimack River on the east. Engineers are working to refine the design to avoid impacts, but the solution will likely involve some level of impact to the river (several hundred linear feet of bank) due to the proximity to the existing ROW of an adjacent historic mill building. In addition to wetlands regulatory protections, the Department needs to consider Section 106 and Section 4(f), which provide significant protection to the millyard. If the highway encroaches any further on the building, it may be that a full acquisition would be required due to the lack of emergency access around the building. M. Hicks pointed out that impacts to the river, including any cantilevered section, would also incur Section 10 impacts. M. Hicks also pointed out that Essential Fish Habitat may be impacted, and FEMA would need to be involved in floodplain impacts. M. Kern expressed concern with removal of vegetation along the river bank.

Exit 6 area, Black Brook Wetland (BB-01)

A relatively large emergent/scrub-shrub wetland is located south of the mainline crossing of Black Brook, adjacent to the west side of the highway. This wetland has been designated “BB-01.” Although it is close to Black Brook, it does not appear to be directly hydrologically connected, but it is within its 100-year flood zone. Due to its urban setting, the ecological integrity of this wetland is relatively low, although it does provide functions related to water quality and flood flow attenuation. All of the alternatives currently under consideration would substantially impact this wetland – perhaps as much as 1.5 acres – which makes it the single largest impact based on the preliminary analysis.

Vernal Pools at Relocated Exit 7
A vernal pool complex was identified north of the Manchester Landfill. If Exit 7 is relocated north, then a portion of this complex would be directly impacted, totaling about 10,000 square feet. The environmental team is working with the highway design team to attempt to avoid/minimize this impact. M. Hicks described a Corps policy on vernal pool impacts and mitigation was developed as part of the Exit 4A project – M. HIcks will send a copy of that document to P. Walker.

Goffstown Connector, Black Brook Crossing (BB-05)
One alternative under serious consideration would create a new roadway segment to connect Straw Road/Goffstown Road to a relocated Exit 7. This connection would require construction of a new bridge across Black Brook (Wetland BB-05). The wetland complex associated with Black Brook in this area is relatively large and provides several functions and values. Beaver have impounded the brook, which increases the extent and depth of inundation. The new crossing would be located in the narrowest point of the wetland – just to the northwest of the Manchester transfer station. This is also the location of a transplanted population of licorice goldenrod, which was planted in 2011 as part of mitigation for a City project. P. Walker confirmed that any new crossing would follow the NHDES Stream Crossing rules and would be supported by a full geomorphic assessment. L. Sommer noted that portions of Black Brook in Goffstown have been mapped as prime wetland. (Manchester does not have prime wetlands.)

<u>Mitigation</u>
Because wetland impacts would exceed 10,000 square feet, mitigation would be required. The project team is just beginning to consider the mitigation strategy, and NHDOT would like initial guidance on potential opportunities in the area. One obvious possibility is the extension of conservation lands along Black Brook – portions of the brook and adjacent riparian zone are already in conservation. L. Sommer requested that Chris Wells at the Piscataquog Land Conservancy should be consulted. She also noted that the NH ARM Fund had contributed to a project on Black Brook. Creation of vernal pool habitat is a potential, especially if combined with preservation. Disturbed areas along Black Brook (associated with gravel mining) may provide a good opportunity for creation/restoration.

<u>Other Issues</u>

- M. Hicks asked if there would be any work on bridges spanning the Merrimack. If so, then NHDOT may need a permit from the US Coast Guard to ensure no impact to navigation. P. Walker said that the project scope does not include modifications to bridges over the Merrimack.
- M. Hicks asked when a permit application would be submitted. Under the current schedule, a permit would likely be submitted in late winter, prior to the public hearing in early 2017. *(Subsequently, NHDOT has determined that the permit applications will be submitted during the Final Design phase of the project, likely in 2018, in order to more fully quantify, assess/minimize impacts to wetlands and develop appropriate mitigation based on the Proposed Action chosen during the NEPA process.)*

This project was previously reviewed on the following dates: (12/19/12 & 6/19/13).

Loudon-Canterbury 29613 (X-A004(201))
Ron Crickard started the meeting by providing a summary of how the project has evolved. In 1995, an Environmental Assessment (EA) was prepared for a project proposing to widen NH Route 106 to 5 lanes from I-393 in Concord to US Route 3 in Laconia, a distance of 21 miles. Interim improvements were also identified to address short-term needs. Since the completion of the EA, the interim improvements have been constructed as smaller, standalone projects. Traffic volumes did not increase as modeled and the 5-lane widening project was never advanced to construction.

In 2012, NHDOT reevaluated a portion of the 1995 EA study limits, extending 11 miles from I-393 in Concord north to a point 0.25 miles north of Ames Road in Canterbury. The purpose of this study was to determine if the 5-lane widening recommended in 1995 was still a valid design alternative that warranted continued consideration. This Corridor Study was completed in March 2012. Based on updated traffic growth trends, it was demonstrated that the 5-lane cross section was no longer necessary to satisfy anticipated future traffic demand in the area, and that a reduced 3-lane cross section would be appropriate. The 2012 Corridor Study identified a three-phased approach to construct improvements along the 11-mile study area.

The subject project is the first phase of the improvements identified in the 2012 Corridor Study. This project begins just south of Soucook Lane in Loudon and continues north for approximately 4.5 miles to the Ames Road/Shaw Road intersection in Canterbury. NHDOT will separate this first phase into two "child" projects, 29613A and 29613B, with two separate construction contracts.

Trent Zanes provided an overview of the conceptual design that is currently proposed. The existing roadway through the project area consists of two 12' travel lanes and two 12' shoulders. The conceptual layout that is under consideration consists of widening the roadway to accommodate an additional lane. Depending on the location within the project area, the third lane would either be a 12' center turn lane (in areas with intersections and frequent driveways) or a 14' passing lane. The northbound and southbound travel lanes and shoulders would be 12' in width. Overall widening will be either 12' or 14', with 6' to 7' of widening on each side of the existing roadway in most locations. While impacts outside existing right-of-way are anticipated, these impacts will be minimal compared to the 1995 5-lane concept.

Christine Perron provided an overview of resources in the project area. The wetland delineation was recently completed and impacts still need to be quantified. Wetland impacts are expected to be below the 3-acre threshold of the Individual Permit. The Department's preference for permitting is to apply for two separate permit applications for the two contracts under Phase 1 while providing mitigation for the overall project as needed. Gino Infascelli commented that this approach makes sense as long as impacts are considered to be cumulative. Lori Sommer noted that the Five Rivers Conservation Trust is active in Loudon and would be a good resource if mitigation is needed. Mark Kern commented that an in-lieu fee may prove to be a simpler option for mitigation. Mike Hicks asked if the Department would be establishing independent utility for Phase 2 as they did for Phase 1. Doing so would justify separate permitting efforts for each phase. R. Crickard replied that it was anticipated that Phase 2 would have independent utility, although that next phase would be sometime in the future. He would send FHWA's letter regarding independent utility for Phase 1 to M. Hicks.

There are eight stream crossings in the project area. Gues Meadow Brook flows under NH Route 106 in three locations and each crossing is a Tier 3 crossing based on watershed size. In addition to Gues Meadow Brook, four culverts in the project are Tier 1 stream crossings and one is a Tier 2. The condition of culverts has not yet been assessed; therefore proposed drainage design has not yet been developed. Initial hydraulic analysis of the Gues Meadow Brook crossings does show that all three crossings currently pass the 100-year storm, which will be one factor taken into consideration when developing design alternatives for these structures. L. Sommer noted that any work on these crossings should consider making improvements in wildlife connectivity. She recommended referring to a study that was completed for the speedway that looked at wildlife connectivity and permeability of NH Route 106.

The 2014 303(d) list includes Gues Meadow Brook as an impaired surface water due to benthic macroinvertebrate assessments and pH. Given the scope of the project and the proposed increase in impervious surface, the Department is anticipating the need for stormwater treatment. The type and location of treatment areas is currently under study.

Conservation land is located within the project area. Shaker State Forest is located on the west side of the roadway at the north end of the project. NH Fish & Game holds easements on two properties located on the east side of the roadway. These properties will be entered into design files and it will be determined if impacts on these properties can be avoided. If impacts cannot be avoided, appropriate coordination will take place. L. Sommer stated that impacts to lands under conservation easement would require coordination with the Charitable Trusts Unit of the Attorney General's Office. Carol Henderson also recommended coordinating with Rich Cook at NH Fish & Game. C. Perron replied that she had been in touch with Rich about the project and would keep him informed as the project moved forward.

State-listed species in the project area include a sensitive plant species located in Shaker State Forest approximately 300' from the roadway. Impacts at this location are unlikely but the site will be flagged in design files. There are also records of American eel, bridle shiner, and wood turtle in the vicinity of the project. Coordination with NH Fish & Game on these species will be initiated once more details are available on drainage design.

Small-whorled pogonia, a federally-listed species, was identified in the project area in 2011 (one stem). The location and surrounding forested habitat was surveyed this July and the plant was not found. As clearing limits are developed for the project, areas of proposed tree clearing will be assessed for suitable small whorled pogonia habitat and additional surveys will be carried out if necessary. Amy Lamb recommended contacting Maria Tur at the US Fish & Wildlife Service. Since the USFWS uses a larger buffer around this species, additional survey may be required near the site where it was previously identified.

An acoustic bat survey was completed to assess the potential presence of northern long-eared bat. The survey consisted of eight detector sites. Based on the data collected, it was determined that the presence of this species is not probable. The US Fish & Wildlife Service has reviewed the survey results and concurs that northern long-eared bat is not present.

Mapped 100-year floodplains are adjacent to the project area at two locations: Kimball Brook at the north end of the project and the northernmost crossing of Gues Meadow Brook. Impacts to floodplains will be assessed as design of the project progresses.

M. Hicks asked when submittal of permit applications was anticipated. R. Crickard said that the first contract for this phase was expected to advertise in 2018, so the permit application would likely be submitted by the fall of 2017.

M. Hicks asked how long the project is. T. Zanes replied that Phase 1 is about 4.5 miles in length.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Ossipee, 10431 (X-MGS_NHS_X_T-0271(032))

Jon Hebert provided a brief overview of the project. He mentioned that the project has been around for around 20 years and, though the project limits have remained the same, the scope has been reduced due to a limited budget. The project has gone through several iterations, including a bypass option. The preferred alternative at this time is 3.4 miles in length and includes 3 treatment types. J. Hebert showed a concept plan for the project and explained that there are three different treatments proposed for the project.

At the southern portion of the project beginning at the intersection of Route 16 and Route 28 the project proposes signal upgrades, restriping and a pavement overlay. The treatment will extend from the intersection with Route 28 on Route 16 to the intersection with Isaac Buswell Road. There will be some drainage improvements in this area and a small amount of pavement removed (the slip ramp free right turn lane onto Route 28).

The middle portion of the project is where the major work is proposed. This section begins at around the intersection with Isaac Buswell Road and extending north to just north of Polly's Crossing Road. The proposed treatment is step box reconstruction with widening and drainage work. This section of roadway has not been improved, the northern and southern sections have been improved by previous projects. Currently, the design includes removing the concrete from the old roadway that is underneath the current roadway. The proposal is for full reconstruction of the roadway (new box and pavement) and expanding the road from 24 feet to 32 feet wide by adding 4 foot shoulders (3 feet of paved shoulder). J. Hebert described that the project will increase the impervious area in the project area by approximately 13,000 square feet.

The northern section will be from just north of Polly's Crossing Road north for around 2.1 miles to around the intersection with Route 16B, the treatment will be to cold plane 3 inches of existing pavement and put back 3 inches of HBP pavement and drainage improvements. The road work will be within the existing edge of pavement.

J. Hebert explained that the project will include some drainage work and will require some minor right-of-way purchases. At this time the locations of drainage improvements are still being field verified. Rebecca Martin and Matt Urban updated the wetland delineation for the project area.

Minor wetland impacts are anticipated, estimated at approximately 3,000 square feet of impacts. There will be some tree clearing, estimated at around 0.25 acres.

Kirk Mudgett described that a stormwater treatment area is being considered north of the intersection of Route 16 with Route 16B. K. Mudgett explained that there may also be some opportunity for treatment at the intersection of Route 16 and Route 28, but that there would likely be difficulties with this area because of existing facilities in the area. That location would also not meet the entire needs for added impervious area treatment, whereas the 16B location could possibly treat more than what we need.

R. Martin shared a PowerPoint and described known resources in the project area. There will be one or more streams with minor impacts anticipated. Two federally listed species were identified for the project area, Small Whorled Pogonia and Northern Long Eared Bat (NLEB). R. Martin explained that there was a Northern Long Eared Bat probable presence indicated by an acoustic survey for the nearby Ossipee 14749 project. However, due to limited clearing for the Ossipee 10431 project, habitat impacts are not anticipated to be significant and the project should qualify for the new FHWA Programmatic Consultation Biological Opinion. Also, according to NH Fish and Game and the information received from Natural Heritage Bureau, there are not known NLEB hibernacula or maternity roost trees in Ossipee and the work is anticipated to be within 300 feet of the roadway. R. Martin informed the group of state listed species in the project area, the Northern Black Racer (NH Threatened) and the Wood Turtle (Species of Special Concern). Carol Henderson asked that the wildlife friendly erosion control be utilized in the project area. She suggested the cocoa matting. R. Martin explained that consultation has been ongoing with the NH Natural Heritage Bureau regarding a rare natural community, a temperate minor river floodplain system, and the Small Whorled Pogonia records near the project area. Amy Lamb requested that R. Martin send the location of the project in proximity to the rare community (completed 8/25/16). Amy Lamb also suggested that DOT coordinate with USFWS regarding the Small Whorled Pogonia (initiated 8/25/16).

The group discussed the intended treatment intended for the added impervious area. Gino Infascelli commented that he is concerned about the wetland near Duncan Lake which may be a bog. He also mentioned that the current locations being considered for proposed treatment areas for stormwater are not at the area where impervious area is being increased. J. Hebert mentioned that the grade of the roadway makes it difficult to construct swales on the roadside slopes in the middle section of the project. R. Martin commented that Kirk Mudgett, Mark Hemmerlein, and she visited the site to look for potential areas for treatment and that the other areas reviewed would either require significant clearing or purchase of right-of-way. G. Infascelli commented that he has difficulty following the thought process for installing treatment away from the added area and this makes him uncomfortable.

Jamie Sikora asked about the portions of roadway north and south of the area with greatest impacts. J. Hebert indicated that the lanes are fairly wide. This project would essentially fill in the gap in the middle treatment area where there are not shoulders.

Mike Hicks inquired if there will be floodway or floodplain impacts. J Hebert and R. Martin said there are not in this area.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Manchester/ Bedford Mitigation Wildlife Habitat

Ron Crickard (NHDOT) introduced the project for review. NH Fish and Game approached the Department of Transportation to manage parcels along Little Cohas Marsh, which were purchased as part of the mitigation for the Manchester Airport access road project. The potential to transfer the parcels to NH Fish and Game was discussed. Approval to begin implementation of management this fall on a small number of parcels and continue to pursue the transfer of the parcels is being requested.

Heidi Holman (NHFG) introduced the recovery effort for New England cottontails in this landscape. NHFG and partners are working to create 1000 acres of young forest habitat to support 500 rabbits in the long-term. Management on these parcels would include some commercial harvest and also some brontosaurus mowing. If approved the project will be brought in front of the State Lands Management Team monthly meeting to meet all federal compliance checks for impacts to historic resources, rare species etc. There are invasive plants on site, some wetland crossings, and other threatened and endangered species that need to be taken into account.

Mark Kern asked if the Cottontail prefer shrubby habitat and upland areas vs wetland habitat. Heidi Holman responded that is correct.

Mark Hasselmann from the Federal Highway Administration expressed FHWA support for the management and transfer of the parcels to NHFG provided the agencies concur this is an acceptable use of these mitigation parcels. The project meets the objective of why they were protected which included wildlife benefits. A process for transfer must be put in place.

Carol Henderson from NHFG brought up the concern of funding for taking on the properties if the transfer was to occur to the Department.

Lori Sommer (DES) also agreed that it may be necessary to provide some financial contribution to NHFG along with the transfer to provide for the stewardship of the parcels.

H. Holman (NHFG) also mentioned the Little Cohas Marsh has been a priority for the Department for waterfowl management. This is important that it meets additional objectives in addition to creating habitat for New England cottontail as consideration for the transfer. NHFG has to take into account the burdens of accepting any new property, and the potential for the entire area to be transferred improves the justification for our resources as well.

There will need to be an agreement between the two agencies for the management to occur. A timeline will need to be set for this to be implemented.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Ossipee, 14749, X-A000(490)

Gerry Bedard provided an overview of the project. The project proposes to replace three bridges from the Red List and rehabilitate 3.4 miles of NH Route 16/25, beginning approximately 600' south of Captain Lovewell Lane and ending just south of the NH Route 16/25 bridge over the Chocorua River. The bridges span the Lovell River, Bearcamp River, and Bearcamp River Relief. For the most part, NH 16/25 consists of two 12' travel lanes with 4' shoulders. The last time this project was discussed with the resource agencies, the Bearcamp bridges were to be replaced in their existing location with temporary bridges and roadway diversions constructed to either the west or east side of the existing bridge to maintain traffic during construction. Since that time, several additional alternatives were considered including constructing the new bridges on new alignment and maintaining traffic on the existing bridges during construction. The project now proposes to replace the two Bearcamp bridges using a new construction methodology called slide-in bridge construction, which replaces the bridges in their current location but eliminates the need for temporary bridges. The Lovell River bridge replacement will still require a temporary bridge, which will be constructed to the west of the existing bridge.

The profile of the new Lovell River bridge will be raised and the span will be lengthened. The new Bearcamp bridges will be longer than the existing bridges but the number of piers will be reduced: from four to two piers (allowing the piers to be removed from the river) on the Bearcamp River Bridge and from three piers to two piers on the relief structure. The elevation of the roadway will be raised at the Bearcamp River. Guardrail will be added between the Bearcamp bridges to allow for steeper roadway slopes in this area, which enables the Department to avoid floodway impacts. Proposed roadway rehabilitation work outside of the bridge areas will entail a combination of pavement treatments. Between the Lovell River and the Bearcamp River, the treatment will consist of a full pavement reclamation where the roadway elevation will be raised approximately 9.5" to 11.5". This will result in some minor slope widening. North of the Bearcamp River, where the road is located within the mapped regulatory floodway, a modified reclamation treatment is proposed, which results in little or no rise in roadway elevation in order to avoid impacts to the floodway. Any impacts along the edge of the floodplain are expected to be minimal, although this will be confirmed at a future meeting.

Jennifer Reczek provided additional details of the proposed bridges. With slide-in bridge construction, the new substructure is constructed while maintaining alternating one-way traffic. The superstructure is constructed on temporary supports adjacent to the final bridge location. The road is then closed for a weekend period to allow time to remove the existing bridge and move the new superstructure into place. Bridge slide technology has been done elsewhere in the country but has never been done in New Hampshire. A time lapse video was shown to demonstrate the construction method. The slide-in bridge alternative was selected as the preferred design alternative for this project due to the reduction in impacts to houses and businesses on the west side of Route 16, wetlands on the east side, and cost savings during construction. The short-term closures of Route 16 would occur over two weekends during the off-season in the spring or early fall. These closures were explained during the recent Open House held in Ossipee, and seemed well-received by residents and business owners in attendance.

Carol Henderson asked if most of impacts from this methodology would be from the rail system used to slide the new bridge into place. J. Reczek said that the slide-in system would require

temporary impacts, and there would also be temporary impacts in areas used for access and constructing the new bridge. Jamie Sikora asked if the method for sliding the bridge would be left up to the contractor. J. Reczek replied yes, those details would be up to the contractor, who could choose to use rollers, plates, or some other method. The specification in the contract would only show the concept not the design of the slide technique.

The existing Bearcamp River Bridge is 392' long with five spans. The proposed bridge will be 410' long with 3 spans, resulting in eliminating the piers in the river. The existing Bearcamp Relief Bridge is 168' long with 4 spans. The proposed bridge will be 185' with 3 spans. The new abutments for both bridges will be constructed behind the existing abutments. The Lovell River Bridge is currently a 58' single span. The proposed bridge will be a 97' single span. While the existing bridge already passes the 100-year storm, NH Route 16 south of the bridge is regularly flooded at approximately the Q10 storm. The Department has studied how to address this issue without altering the base flood elevation. By increasing the bridge length and raising the elevation of the southerly approach slightly, hydraulic modeling shows the road south of the bridge flooding at some point between the 50 and 100 year storm. The same low point in the roadway will be maintained. Christine Perron commented that floodplain impacts in this area were reviewed a few years ago with FHWA and the Army Corps, at which time the impacts were considered to be negligible.

C. Perron provided an overview of additional resources known to occur in the project area. Wetland delineation is nearly complete. Wetlands do occur adjacent to the project so impacts are anticipated. Impacts are expected to be below the threshold for an Individual Permit. The DES permit will be a major impact permit due to the Tier 3 crossings of the Bearcamp and Lovell Rivers. If mitigation is required for impacts to wetlands and the rivers, NHDOT's preference would be an in-lieu fee. Once impacts are quantified, the need for mitigation will be discussed at a future meeting.

Stream crossings known at this time are the Lovell River and Bearcamp River bridges. Both of these bridges currently meet the Tier 3 design criteria and the new bridges will be longer. The Bearcamp River is subject to the Shoreland Water Quality Protection Act and the need for a Shoreland Permit By Notification is anticipated. The Bearcamp River is also listed as Essential Fish Habitat for Atlantic salmon and an EFH Assessment will be completed once impacts are better defined. NH Fish & Game has also stated that the Bearcamp River supports wild landlocked salmon, wild brook trout, and brown trout, and the Lovell River supports wild landlocked salmon and wild brook trout. Additional coordination with Fish & Game will take place as the project progresses to determine if any time of year restrictions need to be considered.

The NH Natural Heritage Bureau reported a sensitive plant species to the west of the project. No impacts at that location are anticipated. A number of exemplary natural communities are located to the east of the project, with one directly adjacent to NH Route 16. The locations of natural communities will be included in design files in order to determine if impacts can be avoided as design progresses. Additional coordination with the NHB will take place at that time. The federally-listed small whorled pogonia is known to occur in this area of the state, although no known populations were reported near the project area. To date, the forested habitat in the project

area does not seem ideal for this species. Additional coordination will take place with NHB and USFWS to determine the need for survey.

Rebecca Martin provided a summary of the acoustic bat survey that she completed for the project. The auto-classifier program EchoClass was used to analyze the data and reported probable presence of northern long-eared bat at one detector site. This site was located in an area characterized by a relatively open tree canopy that did not appear to be ideal habitat for this species. NHDOT is in the process of acquiring the program called SonoBat, which allows you to view the acoustic files as sonograms in order to visually analyze the acoustic parameters of each call to confirm the species identification. This analysis will allow Rebecca to determine if EchoClass correctly identified calls as northern long-eared bat.

The 2014 303(d) list includes the Bearcamp River and Lovell River as impaired surface waters due to pH. Weetamoe Brook, located a ¼ mile south of the project, is impaired due to dissolved oxygen. The project does propose a slight increase of 2,000 square feet in impervious surface. This increase is due to the replacement of the Bearcamp bridges, which currently have open-grid shoulders; the new bridges will have paved shoulders. The Department is anticipating the need for stormwater treatment. Currently, it appears that it will be possible to treat runoff from at least 4,000 square feet of pavement in a treatment swale located north of the Bearcamp Relief bridge on the west side of the road.

The Public Hearing for this project is expected to be scheduled for this fall, which means that permit applications will be submitted in 2017.

Gino Infascelli asked for additional information on the stream crossings at a future meeting to better understand how the proposed bridges meet the stream crossing design criteria.

This project was previously reviewed on the following dates: (1/16/13).